UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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MEMORANDUM

DATE: January 26, 2000

SUBJECT: Comments from IDEM on the Supplemental Field Investigation/Risk Assessment Technical Memorandum, Himco Landfill NPL Site, Elkhart, Indiana

FROM: Pat Van Leeuwen
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Superfund

TO: Gwen Massenburg
Remedial Project Manager

I have reviewed the comments submitted by the Indiana Department of Environmental Management (IDEM) on January 24, 2000 pertaining to the supplemental risk assessment prepared for the Himco Dump site. Because of the apparent conflicting views on several issues in this document, I would suggest a teleconference call with the IDEM project manager and risk assessor to discuss these and other issues pertinent to the Himco Dump site as soon as my review comments are completed.

In their general comments, IDEM criticizes the use of combined data from the two groundwater sampling events because the contaminant concentrations are not similar. EPA agrees that the sample concentrations seen in the groundwater samples from 1995 and 1998 are very dis-similar. It is not clear to EPA whether these differences are due to natural seasonal and hydrogeological variations in the groundwater which are reflected in these samples, whether changes in groundwater pumping rates may have affected the groundwater contaminant levels, whether the contaminant concentrations are naturally attenuating, whether the contaminant plume has migrated past the sampling points, or whether the differences are due to poor sampling and/or analytical procedures. EPA and their contractor also debated how to use this data; however, it was decided that these two rounds of data represent the best data (they are QA/QC data) available at present. EPA also looked at other data collected at the site, which include some additional sampling done by Region 5 EPA in 1997. These groundwater samples show intermediate levels of a number of the same contaminants. EPA believes that it would be inappropriate to use the highest values found in each well sample in this supplementary assessment, knowing that

groundwater samples often show such variations due to changing climatic and hydrogeological conditions. Where multiple sampling results (quarterly or yearly) are available for individual wells, averaging the data from each individual well to get the best approximation of the groundwater contaminant concentrations to which a receptor population is exposed is the usual procedure. Of course, if enough data is available to do a trend analysis, different contaminants concentrations may be seen to be more appropriate, or several contaminant concentration levels may be used to demonstrate changes in risk levels due to declining or increasing contaminant levels in the groundwater. Such data is not available for the Himco Dump site. Thus, EPA believes that it was appropriate to conduct this assessment with the best available data (the two rounds of QA/QC data, which were used as the primary data); however, EPA has suggested that the additional data collected at Himco, including the 1997 EPA sampling data, be included in the assessment as secondary data to add support to the use of the average contaminant values. All data should be discussed in the Uncertainty section.

IDEM also commented on the detection limits for the analysis of these samples and suggested that perhaps this assessment should not have been conducted with the data available; they recommended that EPA conduct a complete round of groundwater sampling along with the current plan for additional sampling. EPA agrees that the choice of the analytical detection limits was not ideal, and has requested the preparation of a sampling plan for the collection of additional samples, both in the residential areas of concern and in a number of other locations which impact on our understanding of the groundwater patterns in the area of the Himco Dump site. We have requested analysis using special analytical procedures to allow identification of critical contaminants which may have been missed in the previous rounds of sampling and analysis due to their lower concentration in the samples. EPA appreciates IDEM's support on these issues. This new sampling will not represent a complete set of baseline samples for the site, as requested by IDEM; however, it will provide data on the critical areas of interest. Due to the time constraints on finishing this part of the site investigation, an exhaustive evaluation of the site does not appear to be feasible or desirable at this time. It is anticipated that a requirement for ongoing groundwater monitoring in the future would necessitate the collection of samples in areas not covered in this proposed round of sampling, as well as the possible installation of additional monitoring wells.

Under their Specific Comments, IDEM has also made a number of additional recommendations on specific points in the assessment.

* Regarding the migration of volatile soil gas contaminants into nearby structures, IDEM has recommended that a customized procedure should be developed by the EPA contractor to address this pathway of exposure. EPA does not support the development of such site-specific procedures by contractors for this type of analysis because of the requirement for consistency in approach and methodology for calculating risk between sites and between Regions within EPA. EPA agrees with IDEM that a consistent methodology is needed to address this pathway of concern, and appreciates their support on this matter. Region 5 has consulted with EPA headquarters on this issue and had taken the lead in bringing this issue forward at a national meeting of risk managers. Many new initiatives are in the works, and we have reviewed draft guidelines and methodologies which address this problem. We hope to use these guidelines and methodologies in the assessment of soil gas migration concerns, as appropriate, at the Himco Dump site.

* EPA appreciates the comment on the soil vapor analytical results. The EPA contractors should provide additional review on the association of trench leachate contaminants and groundwater contamination to address these concerns. The presence of perched leachate pools onsite was discussed in earlier documents; however, groundwater sampling has not identified areas where the contaminant concentrations in groundwater are high enough to result in the soil gas contaminant concentrations seen

at the site. EPA is awaiting the results of the additional soil gas sampling that was collected in the late fall. It is anticipated that this will shed some further light not only on the locations of isolated sources of the soil gas contaminants, but on the soil gas flow direction and the horizontal extent of that flow.

* EPA agrees that the information on the existence and present use of groundwater wells in the area is important. To the East of the site, there are literally hundreds of residents who use individual wells; these wells are the focus of additional investigation at the Himco Dump site. To the south, a number of residents have been provided with municipal water, but a number have retained their private wells as their primary source of drinking water. Because of the direction of the groundwater flow in the areas surrounding the site, these latter residents are not considered to be at risk from exposure to water from these wells. It is not clear whether all the private wells at residences where municipal water was provided as the primary water source have been abandoned and capped. Certainly, some future monitoring of groundwater in the areas of the site will be needed; this may need to include sampling of any new wells installed on properties where private wells are still allowed as well as some consistent sampling of existing wells in some areas. Unless all private wells in the area are abandoned and capped and residents are provided with municipal water, risks from the ingestion of contaminated groundwater will remain a concern as future development and other activities in and around the site may result in changes in groundwater flow or source releases. EPA should welcome the help of IDEM in developing a reasonable and protective strategy for assuring that such future exposures do not occur.

* EPA appreciates IDEM's keen eye in noting what could be an oversight in the QA/QC of the site data. This observation certainly warrants additional investigation.